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Shinkichi Ikeda

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EXAMINER

LI, GUANG W

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,795	Applicant(s) IKEDA, SHINKICHI	
	Examiner GUANG LI	Art Unit 2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment date 06/01/2010
2. Claims 1-10 and 12-17 are presented for examination.

Response to Arguments

3. Applicant's arguments filed 06/01/2010 have been fully considered but they are not persuasive.
4. Applicant argues the following limitation(s):
 - Applicant argues, stated in the remark on page 10 with regarding claim 1, "Matta et al. do not teach: 1) responsive to activating or initializing the home gateway device, connecting the home gateway device with a plurality of communication links, by the home gateway device, and 2) selecting, by the home gateway device, a home link from among the connected communication links other than a communication link which has received the network information, as required by claim 1". On the contrary, examiner disagree Matta does not make up the deficiencies of Takeda with respect to claim 1. In the further research of Matta's reference, Matta discloses a higher QoS_Quantifier denotes better QoS and, as such, the handoff trigger is programmed to hand off the mobile terminal 14 to a respective AP/R pair that has the highest QoS_Quantifier. The plurality of communication paths are established between and a correspondent node are only use for measurements of probing. Once the plurality of communication paths been measure for QoS ranking, system selects AP/R pair (Path) based on the weight/ranking requirements to establish connection (see Matta: Fig.4 items 64-78; ¶¶[0049-

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0050]). In additional, Matta teaches Routers 38, 40, 42 contain routing tables that move the datagram to the next "hop," which is either the destination network or another router 38, 40, 42. Datagrams can traverse several routers 38, 40, 42 in the core network 16 before they reach the destination network mode to initializing the router with the routing table then move the datagram to the next hop corresponding to the routing table. Examiner strongly believes Matta's reference does make up the deficiencies of Takeda et al. with respect to claim 1. Claims 6 and 17 are rejected for the same reasons as claim 1.

- Applicant argues, stated in the remark on page 11 with regarding claim 12, "Matta et al. do not teach that a mobile router processing state includes a flag that indicates the mobile terminal acts as a mobile router or does not act as the mobile router, as required by claim 12 (emphasis added). Matta et al. are silent regarding this feature". During the interview, examiner acknowledge Matta et al. do not teach that a mobile router processing state includes a flag that indicates the mobile terminal acts as a mobile router or does not act as the mobile router. However, the propose amendment changes the scope of invention in view of new ground of rejection.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-10 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 7,328,014) in view of Matta et al. (US 2003/0069018 A1).

7. Regarding claim 1, Takeda teaches a home link setting method at a time of activating or initializing a home gateway device having a home agent function for accommodating terminals

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including a first mobile terminal, the home gateway device being connected to a plurality of communication links, the method comprising:

transmitting, by the home gateway device, a solicitation message requesting network information for setting a home network to the plurality of communication links (gateway sends solicitation message sends to all the DHCP agent and server to request information “The gateway equipment 2 sends a DHCP Solicit message addressed to All_DHCP_Relay_Agents_ and_Servers address to discover a DHCP server capable of distributing the prefix (109)” Takeda: see col.8 lines 33-38; Fig.9 item 109);

receiving, by the home gateway device, an advertisement message including the network information (gateway receives advertise message includes the IA_PD option and client identifier option “The gateway equipment 2b receives the DHCP advertise message (110). A check is then made that the IA_PD options and client identifier option of the received message contain correct values and that the server identifier option is included in the received message” see Takeda: col.8 lines 43-47; Fig.9 item 110);and

executing, by the home gateway device, an internal setting so as to conduct the home agent function with respect to mobile terminal on the home link (gateway equipment 2b received the IP address from the DNS server and send authentication reply to the MN 3 “The server section 12 may also use the DHCP Reply message (112 in FIG. 9) to notify the gateway equipment 2b with information such as the IP address of the DNS server 10. The gateway equipment 2b sends an authentication response containing information received from the server section 12 (76)” see Takeda: col.10 lines 56-61; Fig.9 items 109-113).

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Takeda does not explicitly disclose responsive to activating or initializing the home gateway device, connecting the home gateway device with the plurality of communication links, by the home gateway device and a home link from among the communication links other than a communication link which has received the network information.

However, Matta teaches the responsive to activating or initializing the home gateway device (initializing the router with the routing table then move the datagram to the next hop corresponding to the routing table “Routers 38, 40, 42 contain routing tables that move the datagram to the next “hop,” which is either the destination network or another router 38, 40, 42. Datagrams can traverse several routers 38, 40, 42 in the core network 16 before they reach the destination network mode” see Matta: ¶[0031]) connecting the home gateway device with the plurality of communication links, by the home gateway device (each router interconnected with the plurality of wired links 48, 50 “each respective router 38, 40, 42 is interconnected via a plurality of wired link 48, 50 of the core network 16” see Matta: ¶[0031]), and a home link from among the communication links other than a communication link which has received the network information (selection algorithm will provide best routing path to mobile terminal “the mobile terminal 14 trigger mechanism uses the results of the above-referenced steps as part of an input to a selection algorithm. The other inputs to the selection algorithm may include cost factors 66, user preferences 68, load balancing 70 and various other considerations (not illustrated)” see Matta: ¶[0033]) in order to provide highest QoS to the mobile terminal (see Matta: ¶[0016]).

It would have been obvious to one of ordinary skill in the art at the time of invention to create the invention of Takeda to include (or to use, etc.) the responsive to activating or

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initializing the home gateway device, connecting the home gateway device with the plurality of communication links, by the home gateway device and a home link from among the communication links other than a communication link which has received the network information as taught by Matta in order to provide highest QoS to the mobile terminal (see Matta: ¶[0016]).

8. Regarding claim 2, the modified Takeda taught the home link setting method according to claim 1 as described above. Takeda further teaches in said home link selecting step, a respective communication link to which the first mobile terminal complying with a mobile IP protocol is connected is designated as the home link (home address associated with mobile terminal 3 interface identifier “If a binding acknowledgment (155) was received showing that the binding update (location registration) ended normally, then a home address is created from the prefix information received in step 113 and the MN3 interface identifier (114)” see Takeda: col. 15 lines 34-48).

9. Regarding claim 3, the modified Takeda taught the home link setting method according to claim 2 as described above. Takeda further teaches the first mobile terminal is connected to the respective communication link connecting to a communication interface (MN3 interface with HA 1 to discover the home agent address using home agent interface see Takeda: Fig.2 item 19; Fig.9 lines 115-116; col.6 lines 58-61),

wherein in said home agent setting step, when home agent information meets conditions specified by the network information, the internal setting is executed using acquired home agent information, whereas when the home agent information does not meet the conditions, the internal setting is executed using home agent information generated based on the network information (if

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receiving prefix meet the condition, search for home client identifier in the table otherwise create new entry in the prefix management table “The server section 12 of HA1 that received the DHCP Solicit message, searches the IA_PD file of IA_PD options for the DHCP Solicit message. The server section 12 then decides whether or not a prefix can be distributed to the received IAID (81)” see Takeda: col. 11 lines 58-67 and col. 12 lines 1-4).

10. Regarding claim 4, the modified Takeda taught the home link setting method according to claim 3 as described above. Takeda further teaches in said home agent setting step, when the internal setting is executed using the home agent information which is newly generated, a notification of the newly generated home agent information is given to all of the mobile terminals on the home link (notify all the MN of host hose network when prefix reattach “The home network might reattach a prefix. The Mobile IPv6 contains a function to notify the MN of the host network of prefix information for the home network. The HA checks the binding cache and notifies the MN in the binding update process with an MPA (Mobile Prefix Advertisement)” see Takeda: col.2 lines 4-9).

11. Regarding claim 5, the modified Takeda taught the home link setting method according to claim 3 as described above. Takeda further comprising:

a step of acquiring information concerning a mobile router function stored in the first mobile terminal (Gateway requesting router function and authentication function “The gateway equipment (GW) belonging to the visited network contains a DHCP-PD requesting router function and an authentication function” see Takeda: col.4 lines 33-47),

wherein when the first mobile terminal performs a mobile router operation, a setting of a home agent corresponding to the mobile router is executed (receiving binding update from the

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mobile terminal and binding the cache on the Home agent “The gateway equipment (MAP) may instead contain a means to request distribution of prefix information to the HA when the gateway equipment receives a binding update request from the MN if the gateway equipment contains an HMIPv6 compatible MAP function” see Takeda: col.4 lines 51-59; Fig.9 items 118-122).

12. Regarding claim 6, Takeda teaches a home gateway device having a home agent function for accommodating terminals including a first mobile terminal, comprising:

plural communication links connected to an Internet network or a local link (plural communication link connect to IP network 8 or gateway “The home network 6 is comprised of HA 1 and a DNS server 10. The visited network 5 (5a, 5b) is comprised of a radio communications device (access point) connected to MN3, a router 4 (4a, 4b, 4c, 4d), and a gateway equipment 2 (2a, 2b) functioning as an interface between the visited network 5 and the IP network 7” see Takeda: col.6 lines 26-37; Fig.1);

a network information processing unit transmitting a solicitation message requesting network information for setting a home network to the plural communication links (gateway sends solicitation message sends to all the DHCP agent and server to request information “The gateway equipment 2 sends a DHCP Solicit message addressed to All_DHCP_Relay_Agents_ and_Servers address to discover a DHCP server capable of distributing the prefix (109)” Takeda: see col.8 lines 33-38; Fig.9 item 109) and receiving an advertisement message including the network information (gateway receives advertise message includes the IA_PD option and client identifier option “The gateway equipment 2b receives the DHCP advertise message (110). A check is then made that the IA_PD options and client identifier option of the received message

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contain correct values and that the server identifier option is included in the received message” see Takeda: col.8 lines 43-47; Fig.9 item 110);

a home agent processing unit performing a home agent function with respect to mobile terminals on the home link (mobile IP procession section “The Mobile IP processing section 15 has a home agent (HA) function for Mobile IPv6 and contains a binding cache management table 330 (FIG.3)” see Takeda: col.7 lines 2-5); and

a home agent setting unit executing settings in said home agent processing unit so as to conduct the home agent function with respect to the mobile terminals on the home link (gateway equipment 2b received the IP address from the DNS server and send authentication reply to the MN 3 “The server section 12 may also use the DHCP Reply message (112 in FIG. 9) to notify the gateway equipment 2b with information such as the IP address of the DNS server 10. The gateway equipment 2b sends an authentication response containing information received from the server section 12 (76)” see Takeda: col.10 lines 56-61; Fig.9 items 109-113).

Takeda does not explicitly to disclose an interface setting unit selecting a home link from among the communication links other than a communication link which has received the network information to be the home link and at time of activating or initializing the home gateway device.

However Matta teaches the interface setting unit selecting a home link from among the communication links other than a communication link which has received the network information to be the home link (selection algorithm will provide best routing path to mobile terminal “the mobile terminal 14 trigger mechanism uses the results of the above-referenced steps as part of an input to a selection algorithm. The other inputs to the selection algorithm may

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include cost factors 66, user preferences 68, load balancing 70 and various other considerations (not illustrated)” see Matta: ¶[0033]) and at time of activating or initializing the home gateway device (initializing the router with the routing table then move the datagram to the next hop corresponding to the routing table “Routers 38, 40, 42 contain routing tables that move the datagram to the next "hop," which is either the destination network or another router 38, 40, 42. Datagrams can traverse several routers 38, 40, 42 in the core network 16 before they reach the destination network mode” see Matta: ¶[0031]) in order to provide highest QoS to the mobile terminal (see Matta: ¶[0016]).

It would have been obvious to one of ordinary skill in the art at the time of invention to create the invention of Takeda to include (or to use, etc.) the interface setting unit selecting a home link from among the communication links other than a communication link which has received the network information to be the home link and at time of activating or initializing the home gateway device as taught by Matta in order to provide highest QoS to the mobile terminal (see Matta: ¶[0016]).

13. Regarding claim 7, the modified Takeda taught the home link setting method according to claim 6 as described above. Takeda further teaches said interface setting unit transmits a verification message for verifying an existence of the first mobile terminal complying with a mobile IP (home address associated with mobile terminal 3 interface identifier “If a binding acknowledgment (155) was received showing that the binding update (location registration) ended normally, then a home address is created from the prefix information received in step 113 and the MN3 interface identifier (114)” see Takeda: col. 15 lines 34-48), and designates the respective communication_link which has received a message responding to the verification

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message notifying the existence of the first mobile terminal, as the home link (Binding acknowledgement message “The server section 11a sends a binding acknowledgment to the MN3 (121). The binding acknowledgment that the server section 11a sends to the MN3 is stored as the following values as shown in FIG. 20” see Takeda: col. 10 lines 4-16).

14. Regarding claim 8, the modified Takeda taught the home link setting method according to claim 7 as described above. Takeda further teaches said interface setting unit acquires home agent information stored in one of the mobile terminals connected to the home link (Gateway requesting router function and authentication function “The gateway equipment (GW) belonging to the visited network contains a DHCP-PD requesting router function and an authentication function” see Takeda: col.4 lines 33-47), and

wherein when the home agent information meets conditions specified by the network information, said home agent setting unit performs a setting of the home agent function using the acquired home agent information, whereas when the home agent information does not meet the conditions, said interface setting unit generates home agent information based on the network information and said home agent setting unit performs a setting of said home agent processing unit using the generated home agent information (if receiving prefix meet the condition, search for home client identifier in the table otherwise create new entry in the prefix management table “The server section 12 of HA1 that received the DHCP Solicit message, searches the IA_PD file of IA_PD options for the DHCP Solicit message. The server section 12 then decides whether or not a prefix can be distributed to the received IAID (81)” see Takeda: col. 11 lines 58-67 and col. 12 lines 1-4).

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15. Regarding claim 9, the modified Takeda taught the home link setting method according to claim 8 as described above. Takeda further teaches when said interface setting unit newly generates the home agent information, said home agent setting unit notifies all of the terminals on the home link of the new home agent information (notify all the MN of host hose network when prefix reattach “The home network might reattach a prefix. The Mobile IPv6 contains a function to notify the MN of the host network of prefix information for the home network. The HA checks the binding cache and notifies the MN in the binding update process with an MPA (Mobile Prefix Advertisement)” see Takeda: col.2 lines 4-9).

16. Regarding claim 10, claim 10 is rejected for the same reason as claim 4 as described hereinabove.

17. Regarding claim 15, claim 15 is rejected for the same reason as claim 5 as described hereinabove.

18. Regarding claim 16, the modified Takeda taught the home link setting method according to claim 9 as described above. Takeda further teaches said interface setting unit further acquires information concerning a mobile router function stored in the first mobile terminal(Gateway requesting router function and authentication function “The gateway equipment (GW) belonging to the visited network contains a DHCP-PD requesting router function and an authentication function” see Takeda: col.4 lines 33-47), and

wherein when the mobile terminal performs a mobile router operation, said home agent setting unit executes a setting corresponding to the mobile router in said home agent processing unit (home agent address discovery request to home agent and home agent reply what is request

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and send home agent address discovery reply back to mobile node see Takeda: col.9 lines 13-29).

19. Regarding claim 17, Takeda teaches a home link setting method at a time of activating or initializing a home gateway device having a home agent function for accommodating terminals including a first mobile terminal, the home gateway device being connected to a plurality of communication links, the method comprising:

transmitting, by the home gateway device, a solicitation message requesting network information for setting a home network to a plurality of communication links (gateway sends solicitation message sends to all the DHCP agent and server to request information “The gateway equipment 2 sends a DHCP Solicit message addressed to All_DHCP_Relay_Agents_ and_Servers address to discover a DHCP server capable of distributing the prefix (109)” Takeda: see col.8 lines 33-38; Fig.9 item 109);

receiving, by the home gateway device, an advertisement message including the network information for setting the home network through a communication link connected to an Internet network (gateway receives advertise message includes the IA_PD option and client identifier option “The gateway equipment 2b receives the DHCP advertise message (110). A check is then made that the IA_PD options and client identifier option of the received message contain correct values and that the server identifier option is included in the received message” see Takeda: col.8 lines 43-47; Fig.9 item 110); and

executing, by the home gateway device, a setting for conducting a home agent function with respect to mobile terminal on the home link (receiving binding update from the mobile terminal and binding the cache on the Home agent “The gateway equipment (MAP) may instead

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contain a means to request distribution of prefix information to the HA when the gateway equipment receives a binding update request from the MN if the gateway equipment contains an HMIPv6 compatible MAP function” see Takeda: col.4 lines 51-59; Fig.9 items 118-122);

selecting, by the home gateway device, one of: (1) a first mode of operation in which the mobile terminal on the selected home link uses home agent information stored in the first mobile terminal for conducting the home agent function (home agent discovery reply from the mobile node “The MN3 first of all, checks whether or not the source address of the Home Agent Address Discovery Reply is in the HA address (HA list). If the source address is contained in the HA list then the MN3 performs a binding update (location registration) for addresses recorded in the HA list” see Takeda: col.9 lines 38-46) or (2) a second mode of operation in which the mobile terminals on the selected home link uses other home agent information for conducting the home agent function, the other home agent information being based on the received network information (when MN moved to other network “When the MN moves to a link (host link) other than the home link (foreign link), the MN acquires the IP address of that link. This address is called the Care of Address (CoA). The MN receives a router advertisement sent periodically by the router in the foreign link. The MN senses movement by detecting a prefix different from the home address” see Takeda: col.1 lines 29-34),

wherein the step of executing the setting causes the mobile terminal on the selected home link to conduct the home agent function in accordance with the selected first or second mode of operation (depend on the mobile node whether on the first network or foreign network to acquires HA address from different communication link of home agent “The MN acquires the address of the HA by extracting HA information from the ICMP Home Agent Address

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Discovery Reply signal. The MN makes a binding update (performs location registration) of the HA address it acquired” see Takeda: col.1 lines 29-34).

Takeda does not explicitly to disclose responsive to activating or initializing the home gateway device, connecting the home gateway device with the plurality of communication links, by the home gateway device and a home link from among the communication links other than a communication link which has received the network information.

However, Matta teaches the responsive to activating or initializing the home gateway device (initializing the router with the routing table then move the datagram to the next hop corresponding to the routing table “Routers 38, 40, 42 contain routing tables that move the datagram to the next "hop," which is either the destination network or another router 38, 40, 42. Datagrams can traverse several routers 38, 40, 42 in the core network 16 before they reach the destination network mode” see Matta: ¶[0031]) connecting the home gateway device with the plurality of communication links, by the home gateway device (each router interconnected with the plurality of wired links 48, 50 “each respective router 38, 40, 42 is interconnected via a plurality of wired link 48, 50 of the core network 16” see Matta: ¶[0031]), and a home link from among the communication links other than a communication link which has received the network information (selection algorithm will provide best routing path to mobile terminal “the mobile terminal 14 trigger mechanism uses the results of the above-referenced steps as part of an input to a selection algorithm. The other inputs to the selection algorithm may include cost factors 66, user preferences 68, load balancing 70 and various other considerations (not illustrated)” see Matta: ¶[0033]) in order to provide highest QoS to the mobile terminal (see Matta: ¶[0016]).

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It would have been obvious to one of ordinary skill in the art at the time of invention to create the invention of Takeda to include (or to use, etc.) the responsive to activating or initializing the home gateway device, connecting the home gateway device with the plurality of communication links, by the home gateway device and a home link from among the communication links other than a communication link which has received the network information as taught by Matta in order to provide highest QoS to the mobile terminal (see Matta: ¶[0016]).

20. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 7,328,014) in view of Goodwin (US 2002/0124107 A1).

21. Regarding claim 12, Takeda teaches a mobile terminal, comprising:

a mobile IP processing unit supporting a mobile IP protocol and receiving a verification message (home address associated with mobile terminal 3 interface identifier “If a binding acknowledgment (155) was received showing that the binding update (location registration) ended normally, then a home address is created from the prefix information received in step 113 and the MN3 interface identifier (114)” see Takeda: col. 15 lines 34-48) for verifying an existence of the mobile terminal connected on a link (mobile IP procession section “The Mobile IP processing section 15 has a home agent (HA) function for Mobile IPv6 and contains a binding cache management table 330 (FIG.3)”see Takeda: col.7 lines 2-5);

a home agent information response unit generating a response message including home agent information indicative of a location of a home agent stored in the mobile terminal upon receipt of notification of receipt of the verification message from said mobile IP processing unit

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(home agent discovery reply from the mobile node “The MN3 first of all, checks whether or not the source address of the Home Agent Address Discovery Reply is in the HA address (HA list).

If the source address is contained in the HA list then the MN3 performs a binding update (location registration) for addresses recorded in the HA list” see Takeda: col.9 lines 38-46),

wherein said mobile IP processing unit of the mobile terminal transmits the response message to a transmission source device which transmitted the verification message, said mobile IP processing unit further transmits another response message in which a mobile router processing state of the mobile terminal is written (binding acknowledge message send back that binding have been received “If a binding acknowledgment (155) was received showing that the binding update (location registration) ended normally, then a home address is created from the prefix information received in step 113 and the MN3 interface identifier (114)” see Takeda: col. 15 lines 34-48) for verifying an existence of the mobile terminal connected on a link (mobile IP procession section “The Mobile IP processing section 15 has a home agent (HA) function for Mobile IPv6 and contains a binding cache management table 330 (FIG.3)”see Takeda: col.7 lines 2-5).

Takeda does not explicitly to disclose the mobile router processing state includes a flag that indicates the mobile terminal acts as mobile router or does not act as the mobile router.

However, Goodwin teaches the mobile router processing state includes a flag that indicates the mobile terminal acts as mobile router or does not act as the mobile router (router flag determine whether the entry is router not host “Router Flags (16 bits) – Router flags indicate whether this entry is a router or not. Router MACs require special handling” see Goodwin:

¶[0120]) in order to reduce VLAN flooding domain to not include switches (Goodwin: ¶[0003]).

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It would have been obvious to one of ordinary skill in the art at the time of invention to create the invention of Takeda to include (or to use, etc.) the mobile router processing state includes a flag that indicates the mobile terminal acts as mobile router or does not act as the mobile router as taught by Goodwin in order to reduce VLAN flooding domain to not include switches (Goodwin: ¶[0003]).

22. Regarding claim 14, the modified Takeda taught the home link setting method according to claim 12 as described above. Takeda further teaches said mobile IP processing unit transmits the response message only when the mobile terminal is connected to a home agent (the mobile IP processing in the home agent only response when request for network information “The Mobile IP processing section 15 has a home agent (HA) function for Mobile IPv6 and contains a binding cache management table 330 (FIG. 3)” see Takeda: col.7 lines 2-5).

23. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 7,328,014) in view of Goodwin (US 2002/0124107 A1) and further in view of Leung (US 6,466,964 B1).

24. Regarding claim 13, the modified Takeda taught the home link network according to claim 12, as described above. The modified Takeda do not explicitly disclose when said mobile IP processing unit does not support the mobile IP protocol, said home agent information response unit does not transmit the response message even if the mobile terminal receives the notification of receipt of the verification message from said mobile IP processing unit.

Leung teaches mobile IP processing unit does not support the mobile IP protocol, said home agent information response unit does not transmit the response message even if the mobile

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terminal receives the notification of receipt of the verification message from said mobile IP processing unit (The node not support the mobile IP protocol wont obtain MAC address for the gateway “Since the node does not implement the mobile IP protocol, the node function without knowledge of the operation of the Foreign Agent or virtual agent scheme” see Leung: col.14 lines 47-57). Leung further provides the advantage of enabling a node that does not support Mobile IP to roam to various Foreign Agents so that it may receive packets sent to it by a corresponding node in order to provide unique protocol for the mobile communication network in view of Leung.

It would have been obvious to one of ordinary skill in the art, having the teachings of Takeda through Leung before them at the time the invention was made to modify the home communication network of the modified Takeda to include non compatible mobile IP protocol not responding to MAC address of the gateway as taught by Leung in order to provide unique protocol for the mobile communication network in view of Leung.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guang Li whose telephone number is (571) 270-1897. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 4, 2010
GL
Patent Examiner

/Benjamin R Bruckart/
Primary Examiner, Art Unit 2446